

## **2013 Wind Cooperative of the Year Award**

### **Sponsored by the U.S. Department of Energy**

The 2013 Wind Cooperative of the Year Award will honor one electric cooperative for its leadership in wind power. All electric cooperatives that are members of the National Rural Electric Cooperative Association (NRECA) are eligible to apply. Cooperatives can nominate themselves or other systems and there is no cost to enter. The Wind Cooperative of the Year Award is sponsored by the U.S. Department of Energy (DOE) in partnership with the NRECA.

This year marks the thirteenth anniversary of the award. Since the program's inception, winners have included Iowa Lakes Cooperative, Minnkota Power Cooperative, Kodiak Electric Association, Wolverine Power Supply Cooperative, Alaska Village Electric Cooperative, Associated Electric Cooperative, Illinois Rural Electric Cooperative, Western Farmers Electric Cooperative, Holy Cross Energy, Basin Electric Power Cooperative, Great River Energy, East River Electric Power Cooperative, and Golden Valley Electric Association. The 2013 winner(s) will be recognized at the NRECA [TechAdvantage Conference](#) in Nashville, TN on March 6, 2014 conference closing luncheon. Please submit nominations (using page two of this nomination form) to:

Randy Manion  
Renewable Resource Program Manager  
Western Area Power Administration  
P.O. Box 281213  
Lakewood, CO 80228-8213  
720-962-7423  
[manion@wapa.gov](mailto:manion@wapa.gov)

#### **Due Date**

All nominations are due by close of business on January 15, 2014.

#### **Additional Information**

Entries will be judged in four areas:

- Corporate leadership
- Innovative marketing
- Benefits to customers
- Project creativity.

Page two of this form must be used as the template for all nominations, and responses should not exceed 1000 words. Graphics of the project and innovative marketing materials may be submitted as attachments. Nominations exceeding 1000 words may be penalized in the judging process.

For additional information, call Randy Manion, Western Area Power Administration, at 720-962-7423 or [manion@wapa.gov](mailto:manion@wapa.gov).

**Nominator Contact Information:**

Name: Patrick Parke  
Title: VP Customer Service  
Company: Midwest Energy, Inc.  
Address: PO Box 898, Hays, KS 67601  
Phone: 785-625-1405  
Fax: 785-650-2561  
E-mail: patparke@mwenergy.com  
Relationship to Nominee: Employee

**Nominee Contact Information:**

Name: Earnest A Lehman  
Title: President & General Manager  
Company: Midwest Energy, Inc.  
Address: PO Box 898, Hays, KS 67601  
Phone: 758-625-1400  
Fax: 785-625-1494  
E-mail: elehman@mwenergy.com

**Nominee Communications/Public Relations contact:**

Name: Bob Helm  
Title: Manager of Corporate Communications  
Phone: 785-625-1463  
Fax: 785-650-2561  
E-mail: bhelm@mwenergy.com

**Why are you nominating this organization?** (In 500 words or less, please describe how this electric cooperative has demonstrated corporate leadership with wind power; explain any innovative marketing or customer education associated with wind power at this cooperative; how customers have benefited from the cooperative's involvement in wind power; and were there any creative solutions to barriers the cooperative faced in securing wind power. Please include information regarding the year your cooperative started considering wind power and the percentage of wind generation in your total power supply):

Midwest Energy (Midwest) supports wind energy development via a broad spectrum of activities including customer education, small wind research, bulk wind purchases, transmission upgrades and policy formulation. (Midwest is a distribution coop; it also operates transmission and generation assets.)

- Midwest conducted 17 small wind information meetings for customers in 2008-2009 and produced a small wind fundamentals webinar. Overall participation was 340.
- Midwest hosts wind information on its web site including (1) Detailed assistance for small wind inquiries (copies attached; adapted from the CRN Cooperative Small Wind Guide), (2) Interconnection guidelines and forms, (3) Tariffs, (4) Small Wind Fundamentals webinar recording, and (5) Links to other wind information.
- Midwest initiated a multi-party response to a DOE/NREL RFP to establish a regional small wind turbine test center in western Kansas. Data from regional centers will be used for product labeling by the Small Wind Certification Council. Midwest pledged support totaling \$100,000. Other participants include Colby Community College and

Kansas State University, which intend to use the test center for education and training purposes.

- While not required by Kansas law, Midwest voluntarily submitted a net metering tariff to state regulators. Still awaiting regulatory approval. (Was delayed during consideration of net metering regulations by Kansas PUC.)
- Kansas' RPS requires "20% by 2020" of nameplate wind capacity versus utility peak demand. With 49 MW of wind under 20-year contracts and in service beginning in January, 2008 from the 250 MW Smoky Hills Wind Farm, Midwest's current wind purchases equal 16% of retail peak load and 12% of annual energy, more than any other Kansas utility. These contracts enable all retail customers to use renewable energy without individual investments.
- Prior to the long-term Smoky Hills commitment, Midwest purchased a 10 MW share of the 110 MW Gray County Wind Farm output for 4.5 years beginning in March, 2002.
- Midwest worked with the developer and contractors to interconnect the Smoky Hills project to Midwest's 230 kV transmission system, overcoming several technical obstacles described in the "Optional" section below. Also, Midwest recently signed an interconnection agreement with the 200 MW Hays Wind Farm.
- Midwest has made/is making several transmission upgrades benefiting wind development. A recent Smart Grid grant will enable enhanced monitoring and control for several wind projects seeking to interconnect at/near Midwest's Knoll substation. This site has already been approved for interconnection to a 345 kV line intended to accommodate additional wind energy. (Groundbreaking has occurred for the 345kV line to be built by ITC.)
- Midwest's CEO is Vice Chair of the Kansas Electric Transmission Authority. KETA fosters wind development through its mission to "ensure reliable operation of the electrical transmission system, diversify and expand the Kansas economy and facilitate consumption of Kansas energy through improvements in the state's electric transmission infrastructure."
- A VP serves on the Kansas Wind Working Group, whose mission is to (1) Make Kansas more hospitable to wind development, (2) Attract wind-related manufacturing jobs to Kansas, and (3) Develop equitable integration of community wind into the generation portfolio.

**Optional additional information (not counted against 500 word limit):**

**A. Location of wind generation and year installed:**

The Smoky Hills Wind Farm is located 25 miles west of Salina, Kansas on Interstate 70; the first phase came on line in January, 2008. The Gray County Wind Farm is located 27 miles southwest of Dodge City, Kansas on Highway 56; Midwest's purchase commenced in March, 2002. The Hays Wind Farm is about 3 miles southwest of Hays, Kansas on Interstate 70 and began production in 2011.

**B. Project budget, including a short description of any innovative financing methods:**

Customer Education: Non-labor expenses for customer meetings and the webinar were about \$4,000 for advertising, room rentals, refreshments and webinar hosting.

Small Wind Test Center: Midwest has pledged \$100,000 of in-kind and cash support for the proposed test center. The funds will be used to extend three-phase electric service to the site and to purchase test instruments, computers, etc.

Bulk Purchases: Midwest has used fixed price purchased power agreements (20 years for the Smoky Hills project and 4.5 years with the Gray County Project) instead of taking an ownership interest. This approach presents less risk to coop members from the relatively new technology. Actual purchase prices are confidential. Costs for interconnecting both projects were paid by the developer and included in the contracted energy price.

Transmission Upgrades: Midwest's responsibility for the Smart Grid substation project described above is \$712,247.

**C. Challenges of the development or purchasing process—this could include market interruptions, internal hurdles and/or buying a new technology:**

The Smoky Hills project presented three significant challenges:

(1) Even though the project developer was responsible for constructing the interconnection to Midwest's 230 kV transmission line, the performance of a contractor was such that Midwest needed to step in with many hours of technical assistance, especially related to metering and relaying.

(2) Since Midwest is the transmission owner, hosting the wind project presented SPP market registration and integration challenges. The project serves 5 utilities in Kansas and Missouri, and software had to be modified such that all off-takers were properly recognized in the market. The project owner was initially unable to perform the allocation of energy among the off-takers, so Midwest performed this task for the first year of operation. In addition, a portion of the energy produced is sold into the SPP imbalance market by the project owner, further complicating scheduling and balancing issues for Midwest.

(3) The most significant and on-going challenge is energy scheduling. Midwest routinely operates in the day-ahead market, but available wind forecasts are not accurate 24 or more hours in advance. Because the project has two phases, two variable and non-dispatchable energy sources must be scheduled and dynamically updated in conjunction with Midwest's owned generation and conventional power supply agreements.